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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/895,160	07/02/2001	Olof Malmstrom	1499/00048	1773

7590 04/10/2002  
Burton A. Amernick  
Connolly Bove Lodge & Hutz LLP  
Suite 800  
1990 M Street, N.W.  
Washington, DC 20036-3425

EXAMINER

HALPERN, MARK

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 04/10/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/895,160

Examiner

Mark Halpern

Applicant(s)

MALMSTROM ET AL.

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/380,752.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### **DETAILED ACTION**

1) The application was filed with a total of 42 claims, however due to errors in numbering of claims 35-46, the original numbering of the claims was erroneous. The originally filed claims were re-numbered as claims 1-42. Claims 35-46 have been re-numbered, in view of the above noted error in numbering, as claims 31-42.

#### ***Specification***

2) Cross Reference section, page 1, should indicate that application 09/380,752 has been abandoned.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3) Claims 6, 18, 32, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6, 18, 32, the basis of the numbers are not disclosed; are they, for example, weight percent, or pounds.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4) Claims 1-42, are rejected under 35 U.S.C. 102(b) as being anticipated by Brungardt (5,766,417).

Claims 1-2, 5, 13-14, 17, 19, 25-28, 31, 39; Brungardt ('417) discloses process for producing a paper for high speed converting or reprographic operations (col. 1, lines 1-15) in which 2-oxetanone is added (col. 3, lines 31-32) to the pulp slurry (col. 6, lines 12-16). The 2-oxetanone is prepared from such acids as palmitic, isostearic and stearic saturated fatty acids (col. 4, lines 57-67) with the saturated bond linear-chain and branched-chain comprising 2 to 40 carbon atoms (col. 4, lines 14-28). Paper made is disclosed in examples.

Claims 3, 15, 29; linear to branch chain fatty acid ratios are disclosed in examples.

Claims 4, 16, 30; the amounts of 2-oxetanone size added to the slurry is disclosed as 25-70 % (col. 4, lines 36-40).

Claims 6, 18, 32; the 2-oxetanone size is added at the rate of 1.5 pounds per ton per to of fiber weight (col. 6, lines 55-64).

Claims 7, 33; additionally alkenyl succinic anhydrides are added to the web (col. 3, lines 40-45, and col. 5 line 26 to col. 6, line 27). The R and R" components of the 2-

oxetanone of formula disclosed by Brungardt (col. 4, lines 14-31) are hydrophobic, making the size a hydrophobizing size.

Claims 8-10, 20-22, 34-36; Brungardt discloses a mineral filler as precipitated calcium carbonate (col. 8, lines 1-9).

Claims 11-12, 23-24, 37-38; the method is conducted under conditions bordering on neutral of pH of 7.8, and under alkaline conditions of pH of 8.0 (col. 8, lines 1-9).

Claims 40-42; a 2-oxetanone based paper size is disclosed.

### ***Conclusion***

5) The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Brungardt (5,846,663) discloses the hydrophobic nature of 2-oxetanone.

6) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Halpern whose telephone number is 703-305-4522. The examiner can normally be reached on Mon-Fri, (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 703-308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7718 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone no. is 703-308-0651.

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Mark Halpern  
Patent Examiner  
Art Unit 1731

April 5, 2002

A handwritten signature in black ink, appearing to read "Peter Chin", with a long horizontal flourish extending to the right.

PETER CHIN  
PRIMARY EXAMINER